



VDT SYMPOSIUM - "An Eye On Hearing"
30.10. – 1.11.2009 Schloss Hohenkammer

MASTERING QUALITY or QUALITY MASTERING ?

31.10.2009 15:30 – 16:30 Workshop Room / Studio

An expert dialogue between

Darcy Proper (Galaxy, Mol, Be)

&

Ralph Kessler (Ing.Büro Pinguin, Hamburg, De)

&

the audience (all over the world)



Overview:

1. Ralph Kessler introduces the topic InFlightEntertainment Demo, some theory and points for later discussion, listening examples 2.0 and 5.1 releases,
2. Darcy Proper's presentation



SUEDDEUTSCHE ZEITUNG:

www.sueddeutsche.de/kultur/524/430276/text/

Tage des Donners

Dynamikschwund in der Popmusik

18.01.2008, 09:51

[Von Jens-Christian Rabe](#)

Ob Oasis oder Red Hot Chili Peppers: Die Popmusik hat die Unterschiede zwischen laut und leise aufgegeben. Was bleibt, sind Aufnahmen an der Grenze zum Lärm. ...

-> Link zu iTube video • [The Loudness War \(480 x 360\).mp4](#)

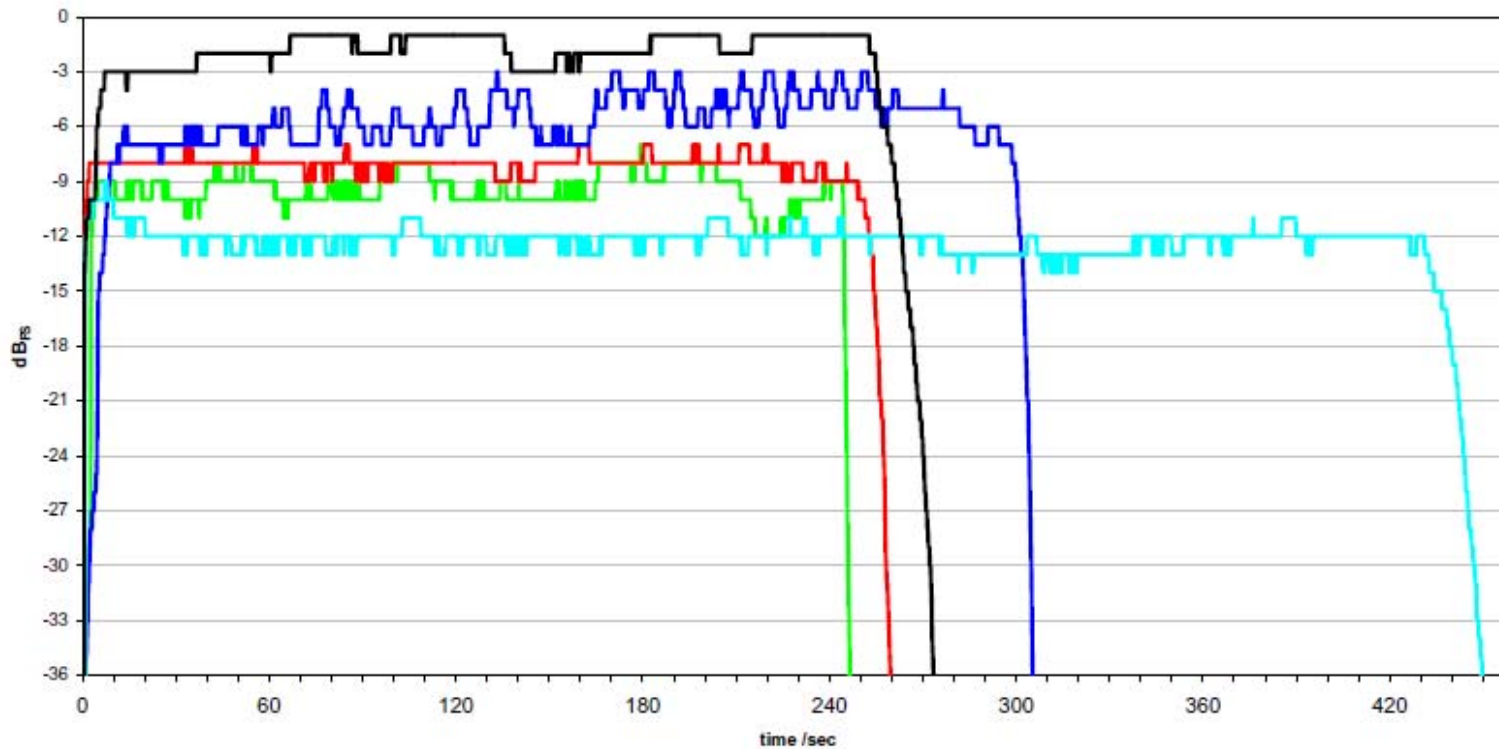
ähnl. im Rolling Stone, HÖRZU,
WallStreetJournal etc. etc.





David Bowie: Vergleich IRT Loudness
Channel 1

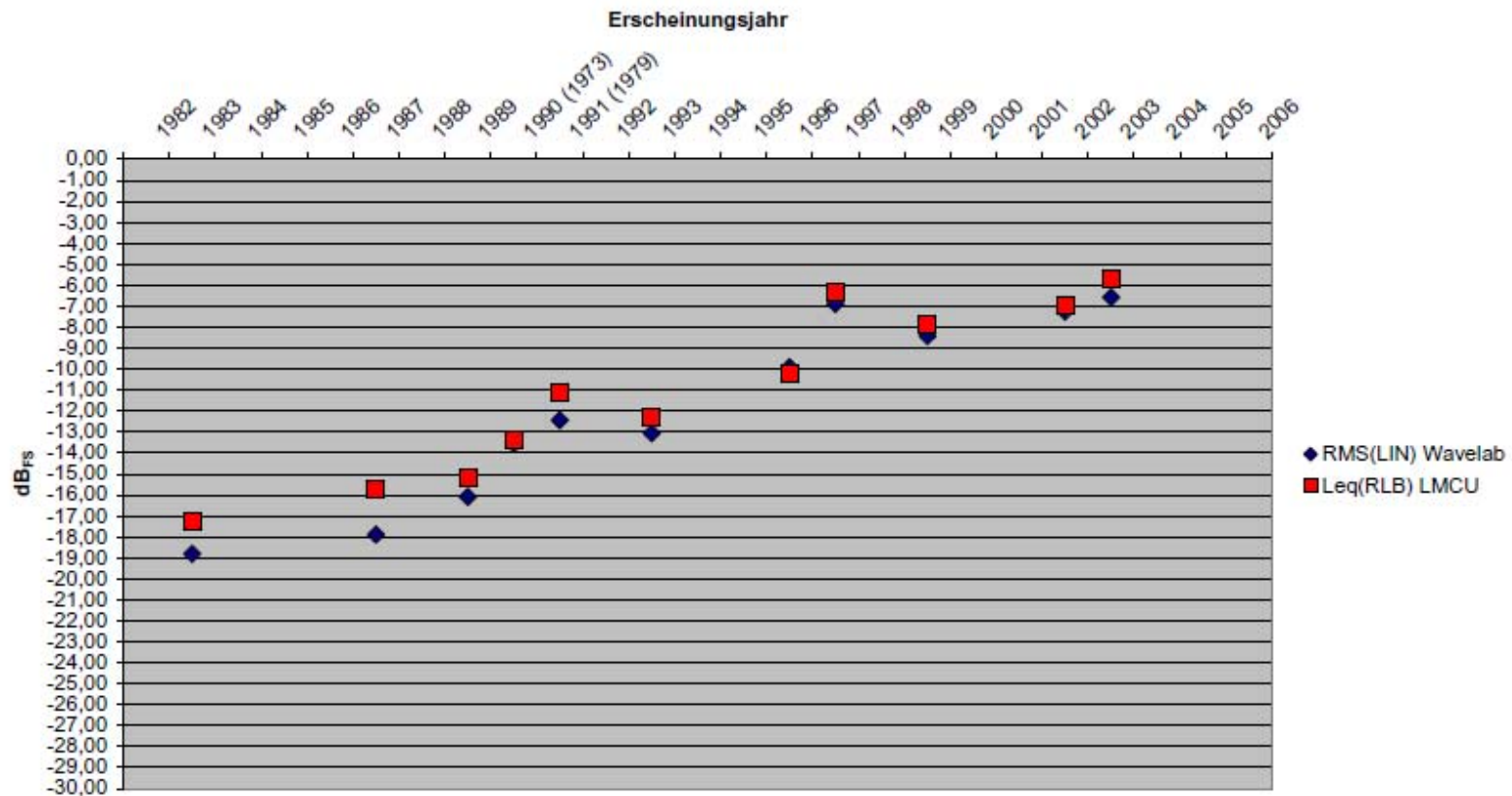
- The Jean Genie (1990)
- Jump they say (1993)
- Strangers when we meet (1996)
- Let's dance (1983)
- New killer star (2003)



- Aus: „Loudness War“ - eine psychoakustische Untersuchung von CDs mit populärer Musik –**
Wissenschaftliche Hausarbeit zur Erlangung des akademischen Grades
eines Magister Artium der Universität Hamburg
von Arne von Ruschkowski, Hamburg, 2007



David Bowie



- **Aus „Loudness War“ - eine psychoakustische Untersuchung von CDs mit populärer Musik –**
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echo 2008
voting zum publikumspreis "Live-Act national"

http://www.rtl.de/musik/games/echo_voting_2008/popup.php

bushido 7 Live- Tour
Maffay Laut & Leise-
Rosenstolz Das große Leben
Silbermond Laut gedacht
Tokio Hotel Zimmer 483-

#####
off.presseerklärung zum ECHO:

Kategorie 18
Beste Live-Act National

Das Publikum entscheidet per online-voting unter www.rtl.de, www.eventim.de und www.bild.de.

#####
auch: mtv voting bestes video - foo fighters, fanta4, james blunt, sportfreunde stiller
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Loudness Viewer

Date: February 2009

Clients: Client 1_2009-02-14_16-16-27.ldf
Client 1_2009-02-14_16-17-22.ldf

Plot 1: Client 1_2009-02-14_16-16-27.ldf
Client 1_2009-02-14_16-17-22.ldf

Plot 2:

Mon	Tue	Wed	Thu	Fri	Sat	Sun
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

Sender app: PG-AM; Sample rate: 48000 Hz; Time step: 1.0 sec.
Log mode: Max channel IRT sum; Log types: PEAK, QPPM, LOUDNESS
First at: 16:17:22; Last at: 16:22:19; Duration: 00:04:57



What characterizes a mastering engineer, a mastering studio

- - how sounds the output of the human and his techn. system in the outside world
 - understanding the customer AND the project (see the CD as a whole).
emphasize acc. the customer wishes UP TO A CERTAIN DEGREE design the new dynamic "histogram" of the album,
(in consequence: its dramatical (musical) flow)
-
- keep a good balance between responsibility and customer satisfaction
use psychology, get an idea how serious the producer is behind his ideas
- have a backbone ... SHOW RESPONSABILITY FOR "YOUR" SOUND



3 MAGIC RULES:

1.

NEVER USE SPPM METER FOR ADJUSTING gains

-> **NEVER DO PEAK NORMALIZING**

IF - AT ALL - USE LOUDNESS NORMALIZING

(VU, RMS is a first approximation of human perception,

ZWICKER (SONE) is used for stationary noise meas.,

ITU just standardized BS 1770

using RMS with a filter curve (R2LB).

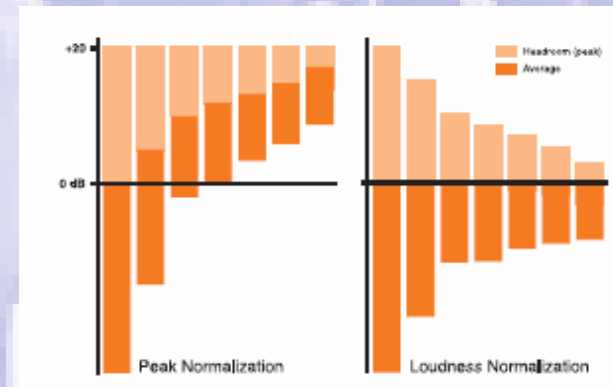
Int. Times, gate times etc. are still under discussion in

EBU group PLOUD.

German IRT is also recommending ITU ! (no noticable difference)

2. **DO NOT KILL TRANSIENTS COMPLETELY !**

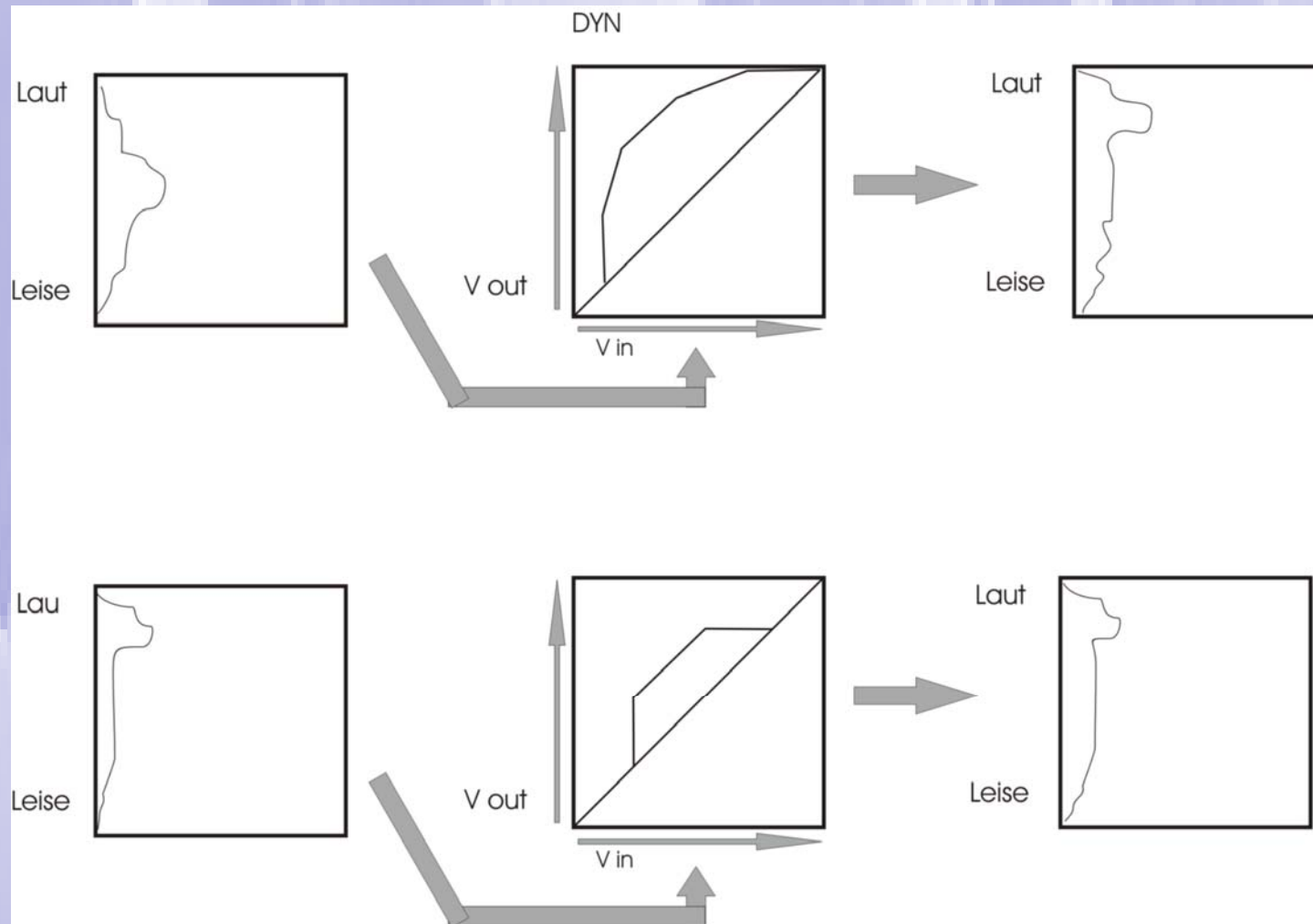
3. **USE A CALIBRATED LISTENING VOLUME !**



- Mastering digital audio media for broadcast, see IRT audio guidelines:
NOT ALWAYS -9 !!!!
sometimes only -5 !
GET A QPPM meter !
- >> 10 ms attack im limiter
- >> Don't kill transients



- Rec. For broadcast processors: use multi-pass compatible Dynamic shaping
DO NOT ABUSE THE FINAL LEVELLING DEVICES !



1. Einführung in aktuelle Meßstandards + Richtlinien

TECHNISCHE AUSSTEUERUNGSRICHTLINIEN

CD / DVD MASTERING – Niemandland,
Eigenverantwortung der herst. Plattenfirmen
Abhilfe: K-System

KINO: SMPTE RP200 - DOLBY
Abhilfe: kalibrierte Abhörlautstärke
Problem: Filme werden immer lauter

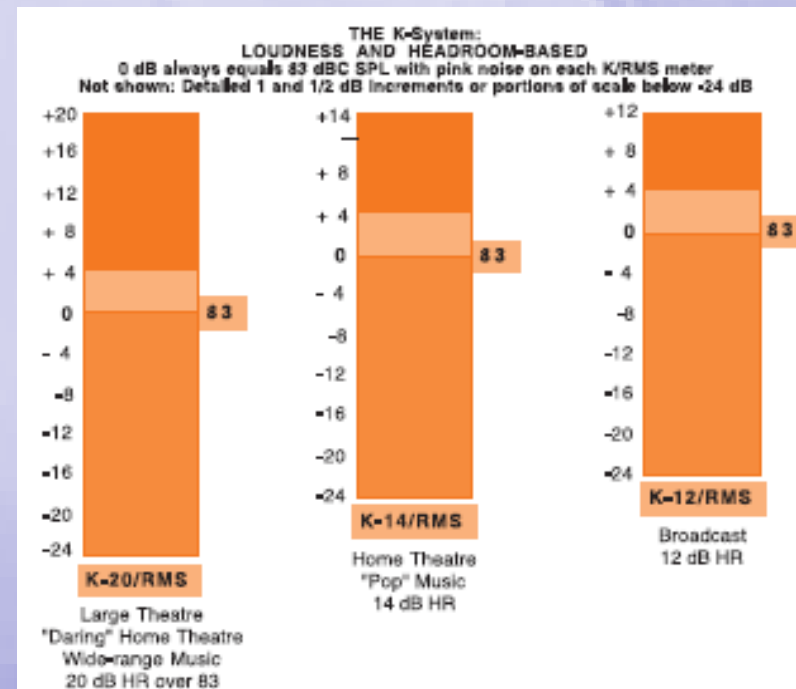
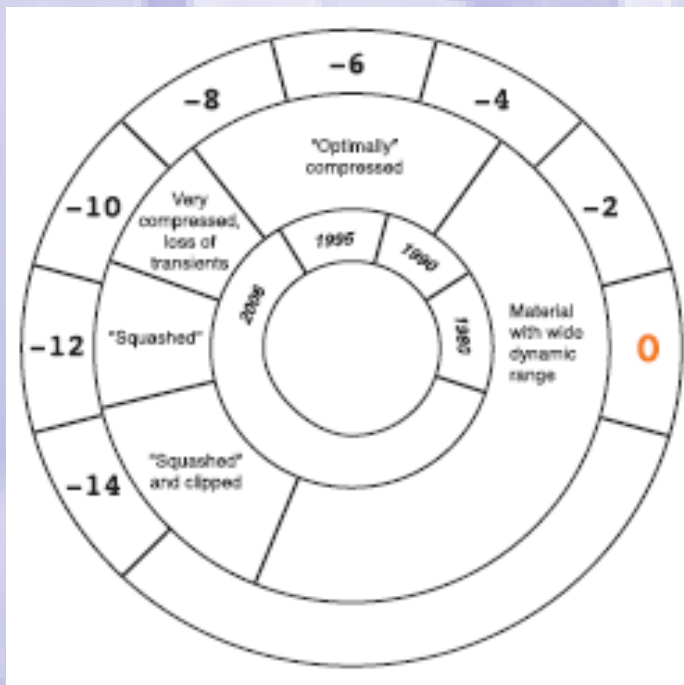
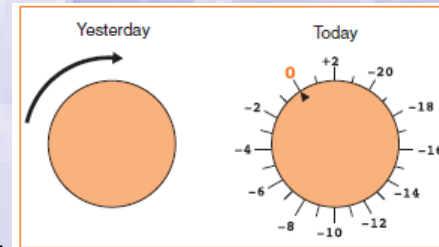
RUNDFUNK: IRT Pflichtenhefte + Techn. Richtlinien



1. Einführung in aktuelle Meßstandards + Richtlinien

KATZ SYSTEM – K-20 K-14 K-12 / RMS

- seit 1998
 - integrierendes System –
SKALA + **Kalibrierte ABHÖRLAUTSTÄRKE** hängen zusammen
- !



	Richtwerte *	QPPM Pegel digital	QPPM Pegel analog
	(Bezug QPPM -9 dB dBFS)	[dBFS]	[dBu]
Wortbeiträge ohne künstlerischen Charakter	0	-9	+6
Off-Sprecher	0	-9	+6
Musik mit geringer Dynamik	-3...-6	-12...-15	+3...0
Musik mit großer Dynamik	0	-9	+6
Werbung (stark komprimiert)	-6	-15	0
Bei Musikproduktionen sind Ansagen oder Zwischendialoge mit reduziertem Pegel <u>entsprechend</u> der Dynamik des Klangkörpers auszusteuern:			
bei Kammermusik und sinfonischer Musik	-3... -6	-12... -15	+3... 0

* *Hinweis:* In Spalte 1 sind die empfohlenen Richtwerte als maximale QPPM Pegel in Bezug auf -9 dBFS (Vollaussteuerungspegel) angegeben. Um Fehlinterpretationen zu vermeiden sind zusätzlich die entsprechenden QPPM Pegel für digitale [dBFS] und analoge [dBu] Pegel angegeben. Die Relation der analogen und digitalen Bezugspegel ist in



-> **DARCY PROPER**

(Sr. Mastering engineer
@Galaxy Studios, Mol, Belgium)

degree in Music Technology New York University

worked 7 yrs for SONY music studios, NYC, NY

2 GRAMMY aw. + 6 GRAMMY nom.

5.1 experience

*credits for : Steely Dan, Eagles, R.E.M., Porcupine Tree,
Manowar, Söhne Mannheims, Rosenstolz a.l.o.a.*

*historical reissues: Billy Holliday, Louis Armstrong, Frank Sinatra,
Tony Bennett, Johnny Cash*



Open Discussion:



WHAT IS AUDIO QUALITY ?

SPLIT / objective / subjective parameters

objective: TECHNICAL QUALITY (HIFI DIN, DC, hum, buzz, clicks etc.)

subjective: content of treble, mid, bass,
micro- and macro-dynamic structure,
kind of reverb
kind of music ?

MATTER OF TASTE ?

WHAT IS THE END OF GOOD TASTE ?

WHERE STARTS THE BAD TASTE ?

DO NOT FORGET FREEDOM OF ARTS ?



Bob Ludwig gives some hope:

- ... The **dynamics vs. volume trade-offs** include the act of simply turning your playback volume clockwise a little. True, when shopping the iTunes store your song may not blast out as loudly as other songs. When trying to impress the radio station PD it may be an issue if you don't have the guaranteed attention this record deserves, however level on the radio *broadcast* is NOT an issue. As I have been lecturing to people for years, the radio stations are all in competition with each other and they all have devices to make loud things soft and soft things loud and indeed, I heard a critic's review of *Chinese Democracy* on NPR and the song examples they played screamed over my portable radio. Even with the radio station compression you can still hear detail in the car... amazing!
- I'm hoping that *Chinese Democracy* will mark the beginning of people returning to sane levels and musicality triumphing over distortion and grunge. I have already seen a new awareness and appreciation for quality from some other producers, I pray it is the end of the level wars.



THANKS FOR YOUR ATTENTION !

- KEEP ON FIGHTING FOR GOOD SOUND !
- To ALL: Don't kill transients.
- MUSIC IS BEST ! (and no background)
- ENGINEERS: BE AWARE AND RESPONSIBLE
BROADCASTERS: DO NOT ABUSE LEVEL DEV.
- EQUIPMENT-Manufacturers:
PLEASE USE BIG RED LIGHTS AGAIN





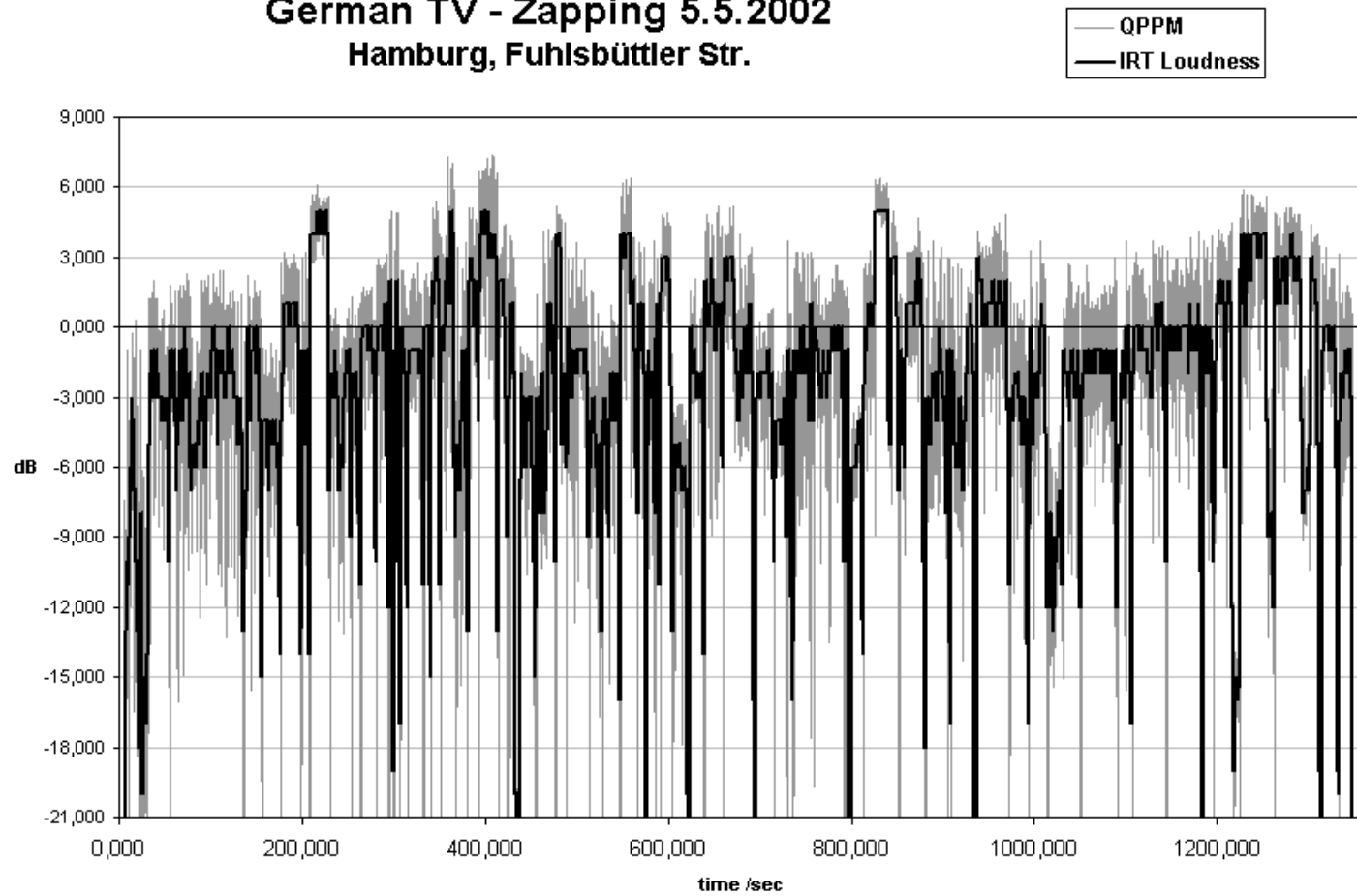


Forschungsergebnisse aus dem Messlabor.

Vergleich 2er Stichprobenmessungen aus dem Hamburger Kabel-TV, 2002, 2008.
Ergebnisse eines 4 Jahre dauernden Internethörtest werden präsentiert.
Messungen diverser Internetradios und der Echo-2008-Internet-Votings
werden in „Ton und Messung“ vorgeführt.



German TV - Zapping 5.5.2002
Hamburg, Fuhlsbüttler Str.



32 TV channels

